

Attorney Docket No.: 19338CD-CPA2

Application No.: 08/554,424

Attachment to November 12, 2002 Response to the Office Action mailed July 12, 2002:

Version of Marked-up Claims

Please make the following amendments in the following specified claims.

Claim 24 (amended):

24. (Amended) [The method of claim 21] A method of identifying ligands that modulate a *Drosophila* membrane sodium channel, which comprises:

- (a) expressing an isolated *Drosophila para* voltage-activated sodium channel, and expressing an isolated *Drosophila* voltage activated putative beta subunit *tipE* in a *Xenopus* oocytes host cell, wherein said expressing of *para* and *tipE* occurs after coinjection of *para* and *tipE* RNA, wherein said *para* RNA is encoded by the DNA molecule as set forth in SEQ ID NO: 7, wherein the sodium channel is tetrodotoxin sensitive, and wherein the host cell expresses a voltage-activated sodium current;
- (b) contacting the host cell with a ligand;
- (c) measuring the resulting voltage-activated current; and
- (d) comparing the voltage-activated current measured according to step (c) with voltage-activated current measured upon contacting said ligand with a control host cell in which said *para* and said *tipE* are not co-expressed.

Claim 25 (amended):

25. (Amended) [The method of claim 22] A method of identifying ligands that modulate a *Drosophila* membrane sodium channel, which comprises:

- (a) co-expressing an isolated *Drosophila para* voltage-activated sodium channel and an isolated *Drosophila* voltage activated putative beta subunit, *tipE*, in a host cell from a multicellular organism, wherein said expressing of *para* and *tipE* occurs after an isolated DNA molecule encoding *para* and an isolated DNA molecule encoding *tipE* are introduced into said host cell, wherein said isolated DNA molecule which expresses *para* is as set forth in SEQ ID NO: 7, wherein the sodium channel is

Attorney Docket No.: 19338CD-CPA2

Application No.: 08/554,424

tetrodotoxin sensitive, and wherein the host cell expresses a voltage-activated sodium current;

- (b) contacting the host cell with a ligand;
- (c) measuring the resulting voltage-activated current; and
- (d) comparing the voltage-activated current measured according to step (c) with voltage-activated current measured upon contacting said ligand with a control host cell in which said *para* and said *tipE* are not co-expressed.

Claim 26 (amended):

26. (Amended) [The method of claim 23] A method of identifying ligands that modulate a *Drosophila* membrane sodium channel, which comprises:

- (a) expressing an isolated *Drosophila para* voltage-activated sodium channel, and expressing an isolated *Drosophila* voltage activated putative beta subunit *tipE* in a host cell selected from the group consisting of *Xenopus* oocytes and a cell from a multicellular organism, wherein an [said] isolated DNA molecule which expresses *para* comprises a DNA sequence [is] as set forth in SEQ ID NO: 7, wherein the sodium channel is tetrodotoxin sensitive, and wherein the host cell expresses a voltage-activated sodium current;
- (b) contacting the host cell with a ligand;
- (c) measuring the resulting voltage-activated current;
- (d) comparing the voltage-activated current measured according to step (c) with voltage-activated current measured upon contacting said ligand with a control host cell in which said *para* and said *tipE* are not co-expressed; and
- (e) comparing the voltage-activated current measured according to step (c) with voltage-activated current produced prior to contacting the host cell with the ligand.